

Claims

1. An optical rotary encoder, comprising:

a rotary slit plate having a rotation angle detection track formed by an optical slit;

5 a light source for applying light to said optical slit;

light receiving elements for rotation angle detection arranged in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit, thereby receiving said light emitted from said light source through said optical slit; and

10 light receiving elements for light amount monitoring arranged at several locations on a circumference in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit, thereby receiving said light emitted from said light source through said optical slit,

wherein said light receiving elements for light amount monitoring have an
15 angular width that is an integral multiple of the angular interval of the intensity distribution, on surfaces of said light receiving elements for light amount monitoring, of light emitted from said light source and passed through said optical slit.

2. The optical rotary encoder according to claim 1,

20 wherein two of said light receiving elements for light amount monitoring are arranged on a circumference in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit, and

wherein said two of said light receiving elements for light amount monitoring are 180 degrees opposite to each other with respect to a center point of said
25 circumference.

3. The optical rotary encoder according to claim 1,

wherein two of said light receiving elements for light amount monitoring are arranged on a circumference in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit, and

wherein said two of said light receiving elements for light amount monitoring are spaced at an interval of (odd number / 2) of the angular interval of the intensity distribution, on surfaces of said light receiving elements for light amount monitoring, of light emitted from said light source and passed through said optical slit.

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4. The optical rotary encoder according to claim 1,

wherein two pairs of said light receiving elements for light amount monitoring are arranged on a circumference in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit,

wherein, in each of said two pairs, two of said light receiving elements for light amount monitoring are 180 degrees opposite to each other with respect to a center point of said circumference, and

wherein two pairs of said light receiving elements for light amount monitoring are spaced at an interval of (odd number / 2) of the angular interval of the intensity distribution, on surfaces of said light receiving elements for light amount monitoring, of light emitted from said light source and passed through said optical slit.

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5. The optical rotary encoder according to claim 1,

wherein both ends of said light receiving elements for light amount monitoring in a radius direction are arranged within or outside the width dimension, in said radius

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direction, of light emitted from said light source and passed through said optical slit in a distribution of said light formed on surfaces of said light receiving elements for light amount monitoring.